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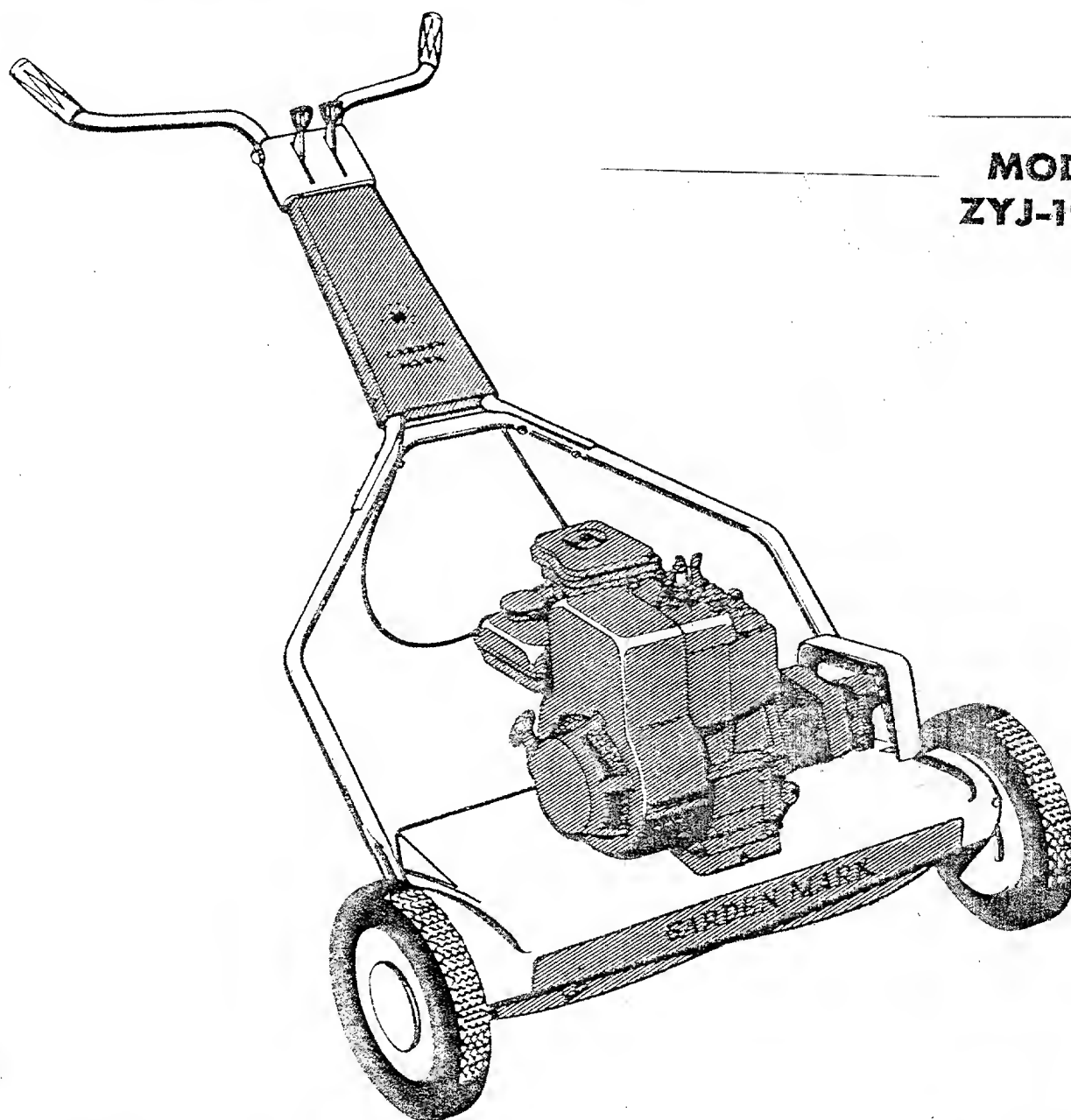
EIGHTEEN INCH REEL LAWN MOWER

EIGHTEEN INCH
REEL LAWN MOW
MODEL ZYJ-197A

WARDS
GARDEN MARK

owner's
guide

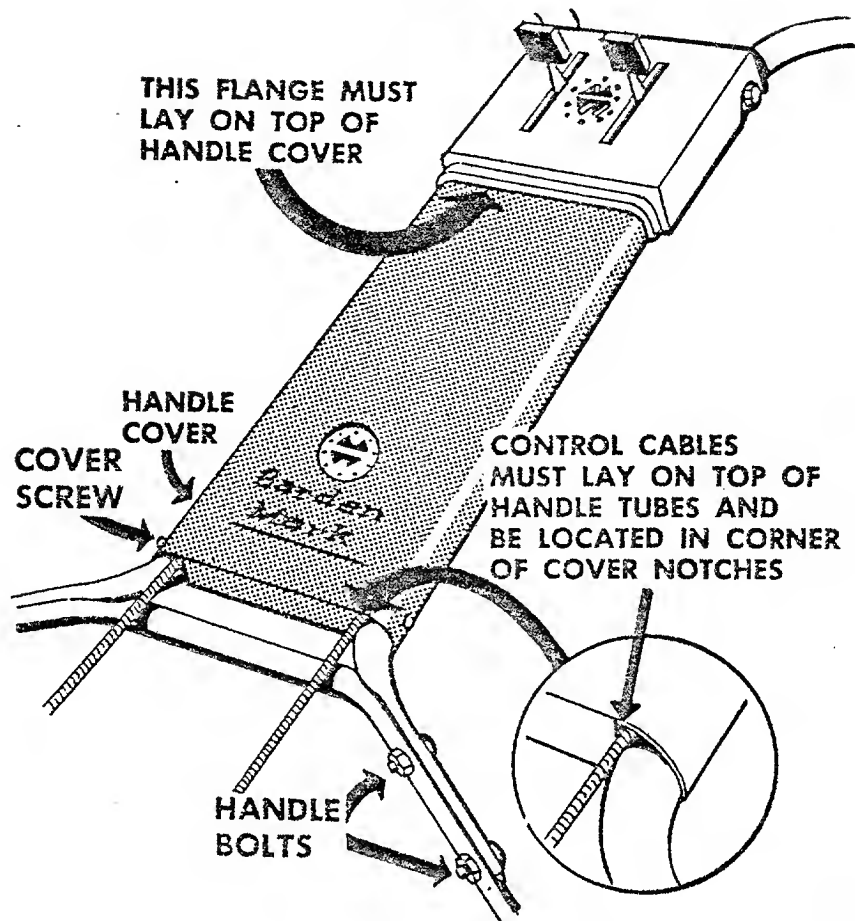
Form No. 89L-33



**MODEL
ZYJ-197A**

—SOLD EXCLUSIVELY BY MONTGOMERY WARD

ASSEMBLY INSTRUCTIONS



IMPORTANT

1. Insert ends of lower handle section through slots in deck and over handle studs. (Left side first.)
2. Remove throttle control assembly from cardboard wrapper and lay control cables over top of lower handle section as shown. DO NOT KINK CABLE.
3. Position upper handle section as shown, and loose assemble to lower section.
4. Position control assembly on upper handle section as shown with control cover flange on top of handle cover. Bolt securely to handle.
5. Loosen the two cover retaining screws and position control cables between handle and cover as shown. PULL CABLES TIGHT TO ELIMINATE CABLE SLACK UNDER COVER. Tighten cover screws and handle bolts securely.

IMPORTANT

RULES FOR SAFE OPERATION

1. Never place hands or feet under the machine.
2. Do not attempt to clean, adjust or repair machine while engine is running.
3. Disconnect spark plug wire before cleaning, adjusting or repairing the machine.
4. Never leave machine running unattended.
5. Never run engine inside a building without opening all doors and windows.
6. Never fill the gasoline tank while the engine is hot, and wipe off any gasoline that might be spilled.
7. Only persons acquainted with the Rules of Safe Operation should be permitted to use mower.

BE SURE MINORS ARE THOROUGHLY INSTRUCTED IN CORRECT OPERATION AND ARE PROPERLY SUPERVISED WHILE USING THIS MOWER.

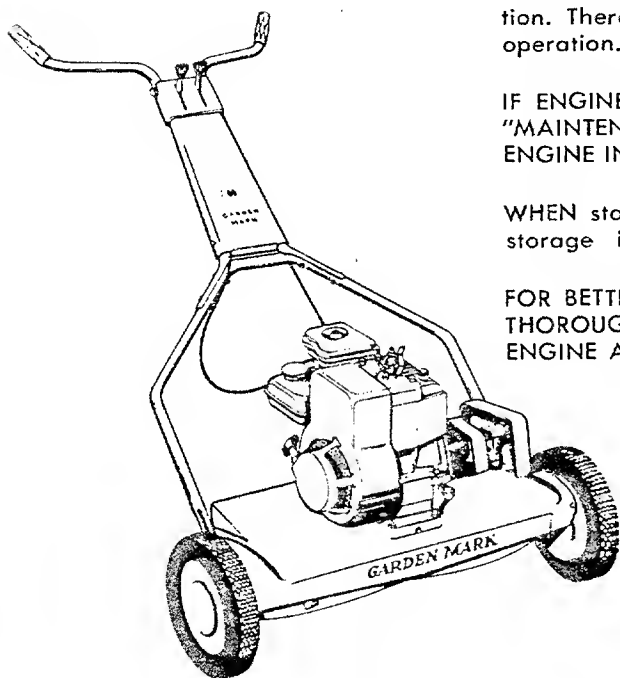
SUGGESTIONS FOR MAINTENANCE

CHANGE oil in crankcase after first 5 hours of operation. Add oil regularly after each 5 hours of operation. Thereafter, change oil after every 25 hours of operation.

IF ENGINE ISN'T FUNCTIONING PROPERLY, FOLLOW "MAINTENANCE ADJUSTMENT" INSTRUCTIONS IN ENGINE INSTRUCTION BOOKLET.

WHEN storing mower for any length of time, follow storage instruction in engine instruction booklet.

FOR BETTER OPERATION AND LONGER SERVICE LIFE, THOROUGHLY CLEAN AND LUBRICATE MOWER AND ENGINE AT THE START OF EACH MOWING SEASON.



BEFORE STARTING ENGINE

1. (Fig. 1) Remove oil fill plug. Place mower level and fill engine crankcase to top of oil fill plug with S.A.E. No. 30 oil. Tilt mower to make sure oil flows completely into crankcase. Replace fill plug and tighten.
2. The air cleaner protects the engine against grit and dirt. CAUTION, an extremely dirty air cleaner element may cause engine to stall. SEE ENGINE INSTRUCTION MANUAL FOR PROPER AIR CLEANER MAINTENANCE.
3. Fill tank with good grade regular, clean fresh gasoline. DO NOT MIX OIL with gasoline.

FOR COMPLETE ENGINE INFORMATION READ ENGINE INSTRUCTION BOOKLET FURNISHED WITH YOUR MOWER BEFORE STARTING OR OPERATING.

TO START ENGINE

1. Move control lever to EASE-O-MATIC position with handle down.
2. Set throttle lever in START position.
3. Pull starter rope with quick full stroke once. Move throttle lever to "FAST" position. Pull starter rope again.
4. When engine starts move throttle lever to "SLOW" position until engine warms up. Regulate engine speed with hand lever from "SLOW" to "FAST."

OPERATING CONTROLS

1. (Fig. 2) Set operating control lever in EASE-O-MATIC position. Raise handle to start . . . lower to stop, for easy maneuverability.
2. Set operating control lever to "MANUAL" position for direct drive operation. Use when mowing large areas or trimming.
3. Throttle lever regulates Start, Fast, Slow and stop.

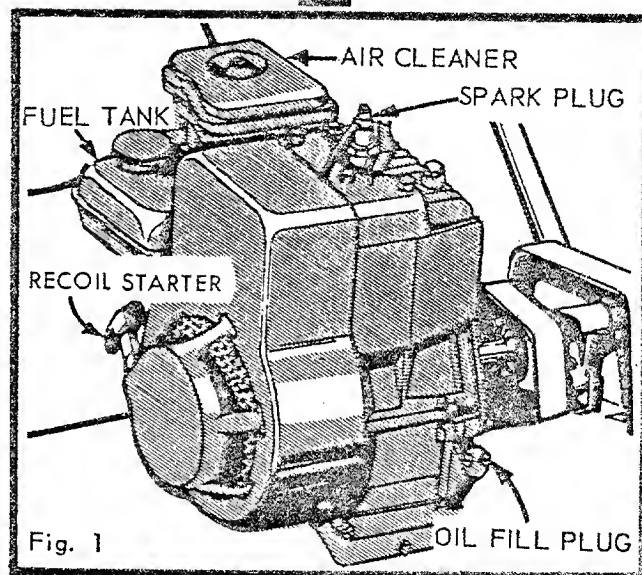


Fig. 1

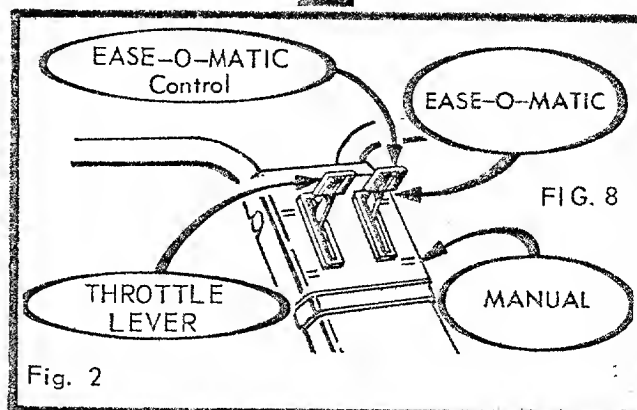
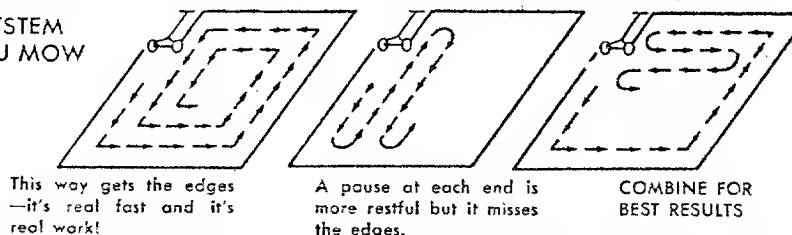


Fig. 2

OPERATING AND LAWN MOWING HINTS

1. Simplicity of control in this Power Reel mower makes mowing a pleasure. Raise the handle to start, lower to stop. Set the throttle level for your convenient walking speed.
2. For close trimming around flower beds, along walks and walls, set the handle control lever to "Manual" position. In manual control, the reel turns as long as the engine runs. Trim by tilting mower back on roller to stop.
3. Don't cut your grass too short. The best height is 1½ to 2 inches. See instructions for cutting height adjustment.
4. Your Power Reel mower is easy to transport. Push down on handle, tilt mower on rollers and push your mower. The blades will be raised for passing over rocks, curbs, etc.

USE A SYSTEM
WHEN YOU MOW

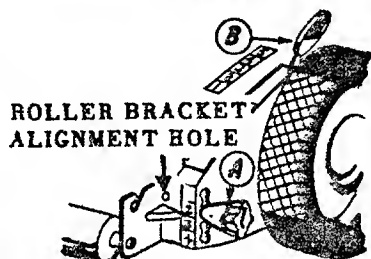


This way gets the edges
—it's real fast and it's
real work!

A pause at each end is
more restful but it misses
the edges.

COMBINE FOR
BEST RESULTS

CUTTING HEIGHT CONTROL



CUTTING
HEIGHT
IN INCHES

	(A)	(B)
2 1/4	4	5
2	4	4
1 3/4	3	4
1 1/2	2	4
1 1/4	2	3
1	1	3
3/4	1	2
1/2	1	1

FIG. 3

ADJUSTMENTS

TO ADJUST HEIGHT OF CUT

1. Consult the chart located on underside of handle cover. The roller adjusting knobs (A) and wheel adjusting levers (B) must be in positions shown for desired cutting height. EXAMPLE: for 1 1/2" cutting height, roller knob must be in No. 2 position, and wheel lever must be in No. 4 position. (Fig. 3 and Fig. 3A)
2. Place mower on hard, flat surface and tilt machine back on roller until wheels are off the ground. Move right hand wheel lever outward to disengage locating pin, then move lever forward or back until it is aligned with proper number on deck

label. Release outward pressure on lever and be sure that locating pin seats properly in hole in end plate. Repeat this procedure on left hand side, position lever so that mower is level.

3. Tilt mower forward until roller is off the ground. Turn right hand roller knob counter clockwise 2 full turns and move knob up or down until alignment hole in roller bracket is in line with proper number on label at rear of end plate. (see illustration) Turn knob clockwise until tightened securely. Repeat this procedure for other side.

QUALITY OF CUT

Cutting height above 1 3/4" is not recommended except where turf growth is upright and dense.

BREAK-IN PERIOD

1. During first 10 hours of operation, check frequently the following:
 - * Oil level in engine crankcase.
 - * Belt adjustment on engine to jockshoft drive. (Fig. 6)
 - * Check all bolts, nuts and screws for tightness.

FIG. 3A

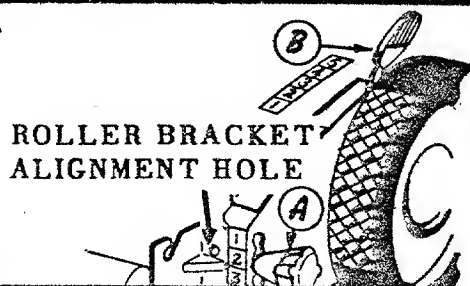
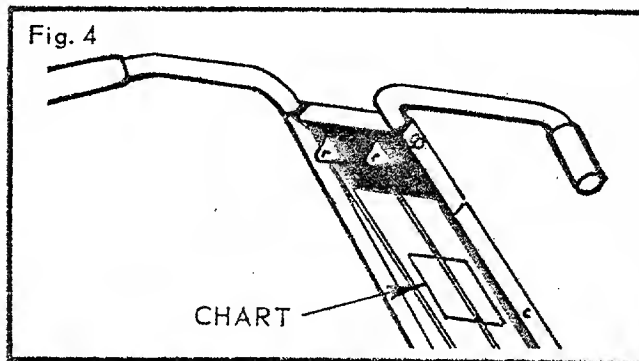


Fig. 4



SERVICE INSTRUCTIONS

ALWAYS REMOVE SPARK PLUG WIRE BEFORE MAKING ADJUSTMENTS . . . NEVER MAKE ADJUSTMENTS WITH ENGINE RUNNING.

Check your mower frequently to make sure all parts are operating smoothly. Your mower left the factory properly adjusted and properly lubricated to assure you of a smooth clean cutting job. Keep it clean. The

mower should be thoroughly cleaned and lubricated at the start of each mowing season for better operation and longer service life.

DO NOT use water to clean the mower—use a broom or brush to remove grass and dirt. When storing mower for any length of time, follow storage instructions in engine instruction booklet.

CHECKING AND ADJUSTING CUTTER BAR CLEARANCE

When properly set, the cutter bar should almost contact the reel blades. Only on very fine grass should the reel blades touch the cutter bar, and then very lightly so that only a slight scraping noise is heard.

It's easy to check proper cutter bar clearance . . . just place a piece of newspaper about 2" wide and 6" long, between reel blades and cutter bar . . . See Fig. 6 below. Correct cutter bar clearance should pinch but not cut the paper at both ends and the middle of the cutter bar. If it doesn't, adjust as follows:

CUTTER BAR ADJUSTMENT

(Fig. 5) Cutter Bar bolts (2 & 3) are tapered and extend beyond the side plate slightly. When these tapered bolts are tight, any end play or looseness is eliminated. Be sure these bolts are tight before making adjustments.

TO TIGHTEN CUTTER BAR

Turn hex adjusting nut counterclockwise.

TO LOOSEN CUTTER BAR

Turn hex adjusting nut clockwise.

REEL AND CUTTER BAR PAPER TEST

1. Insert strip of newspaper between cutter bar and reel blades.
2. Turn reel slowly backwards. If the paper is held snugly by each blade, then adjustment is correct.
3. Adjust cutter bar so that reel blades pinch paper without cutting it.

SERVICE

1. Sharpening is required when the mower will not cut satisfactorily without the reel blades wiping on the cutter bar.

See Page 3 on how to obtain service and replacement parts.

NOTE:

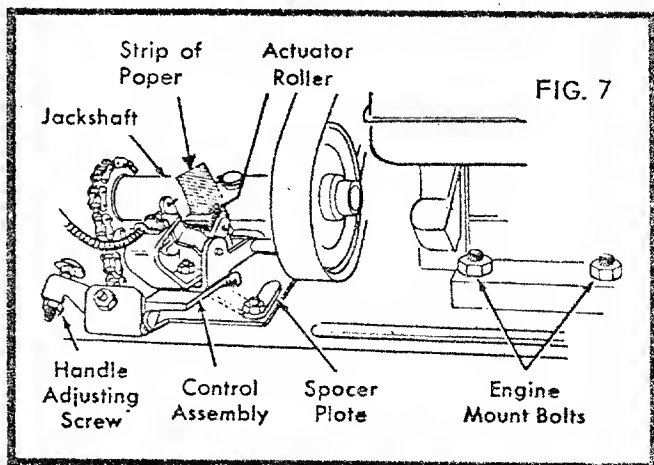
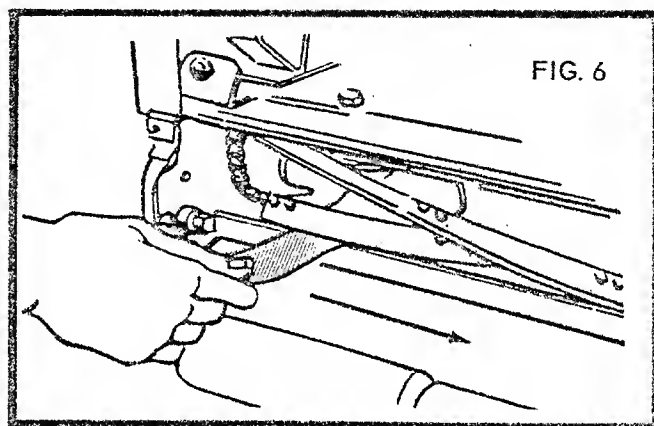
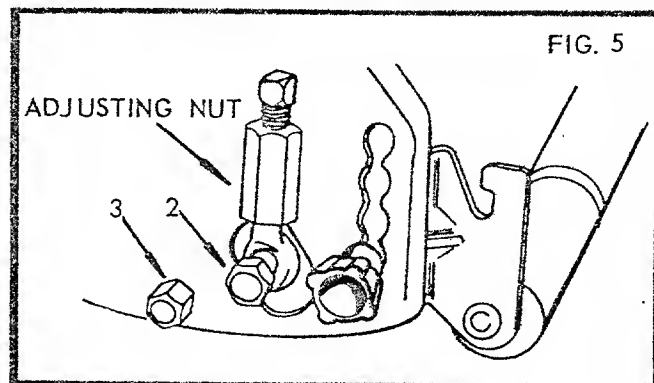
When cutter bar is removed for sharpening, left hand pivot bolt (Item 3, Fig. 5) must be turned counterclockwise to be removed. Right hand pivot bolt on right hand side of mower must be turned clockwise.

TO ADJUST CHAIN DRIVE

1. (Fig. 7) (Fig. 8) Set hand control lever in EASE-O-MATIC position and handle in stand-up position.
2. Loosen 4 engine mount bolts and pull engine back.
3. Loosen 4 control assembly bolts and move spacer plate under control assembly.
4. Pull the control assembly back to tighten chain. Allow $\frac{1}{8}$ inch slack in chain. Tighten 3 control assembly bolts. Leave spacer plate nut loose.

TO ADJUST BELT DRIVE

1. Check procedure TO ADJUST CHAIN DRIVE.
2. Be sure engine mount bolts are loose and spacer plate is positioned beneath control assembly.



3. Handle must be in stand-up position and hand control lever in EASE-O-MATIC position.
4. With strip of paper between jackshaft and actuator roller, hold control assembly down against spacer plate . . . then move engine forward until paper is just free. Retighten engine mount bolts.
5. Move spacer plate from under control assembly. Tighten spacer plate nut.

TO ADJUST EASE-O-MATIC ACTION

1. Place hand lever in MANUAL position. (Fig. 8)
2. Lower handle to operating position.
3. Loosen adjusting screw locknuts (Fig. 8A).
4. With handle down, adjust screw so that Actuator Roller has $\frac{1}{16}$ inch clearance between roller and jackshaft.
5. Retighten adjusting screw lock nut.

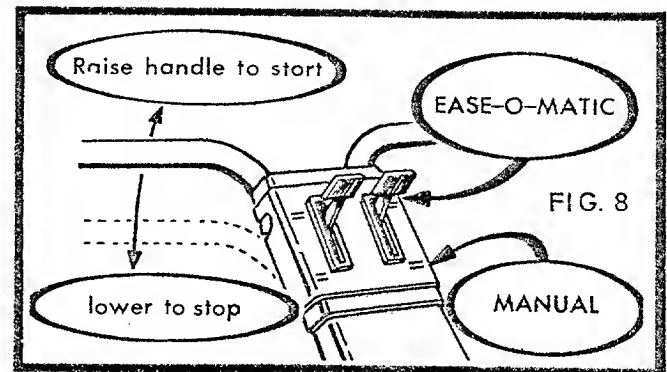


FIG. 8

LUBRICATION

1. Change engine oil (crankcase) after first 5 hours of operating. See engine operating instructions.
2. Check air cleaner frequently.
3. Reel bearings require no attention until mower is serviced.
4. Check jackshaft oiler cup frequently, oil at beginning of mowing season and as needed. Oil roller shaft once or twice a year or as needed.
5. Lightly lubricate with engine oil, points indicated on roller and between end plates and wheel dust covers. Periodic lubrication of these points will insure smooth mechanical operation. (Fig. 9).

To insure continued easy operation of controls, oil outside of exposed cables for full length with engine oil as required.

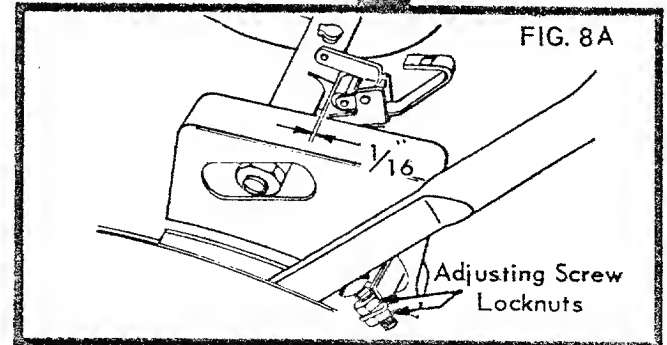


FIG. 8A

STAND-UP HANDLE

The convenient stand-up handle eliminates storage problems, simply move handle into upright position, & lock with convenient stand-up handle latch. (Fig. 10).

To transport mower in car, disconnect control cables from mower and remove handle. DO NOT KINK CABLES.

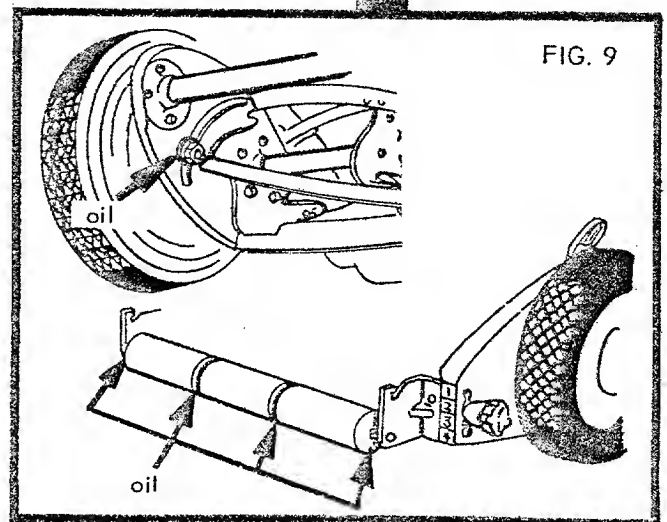


FIG. 9

STORAGE

Store your mower in a clean, dry place and keep clean to serve you well. If stored for a length of time, the engine should be drained of fuel. This will prevent the forming of gum deposits on essential parts in the carburetor, fuel line, and tank, which might affect the efficient operation of your engine when again used.

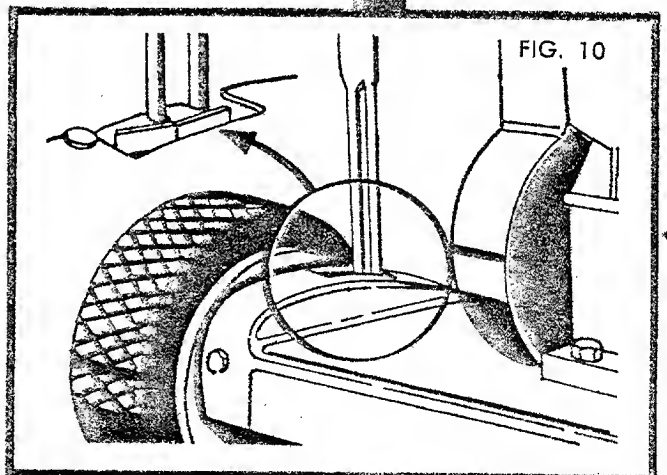
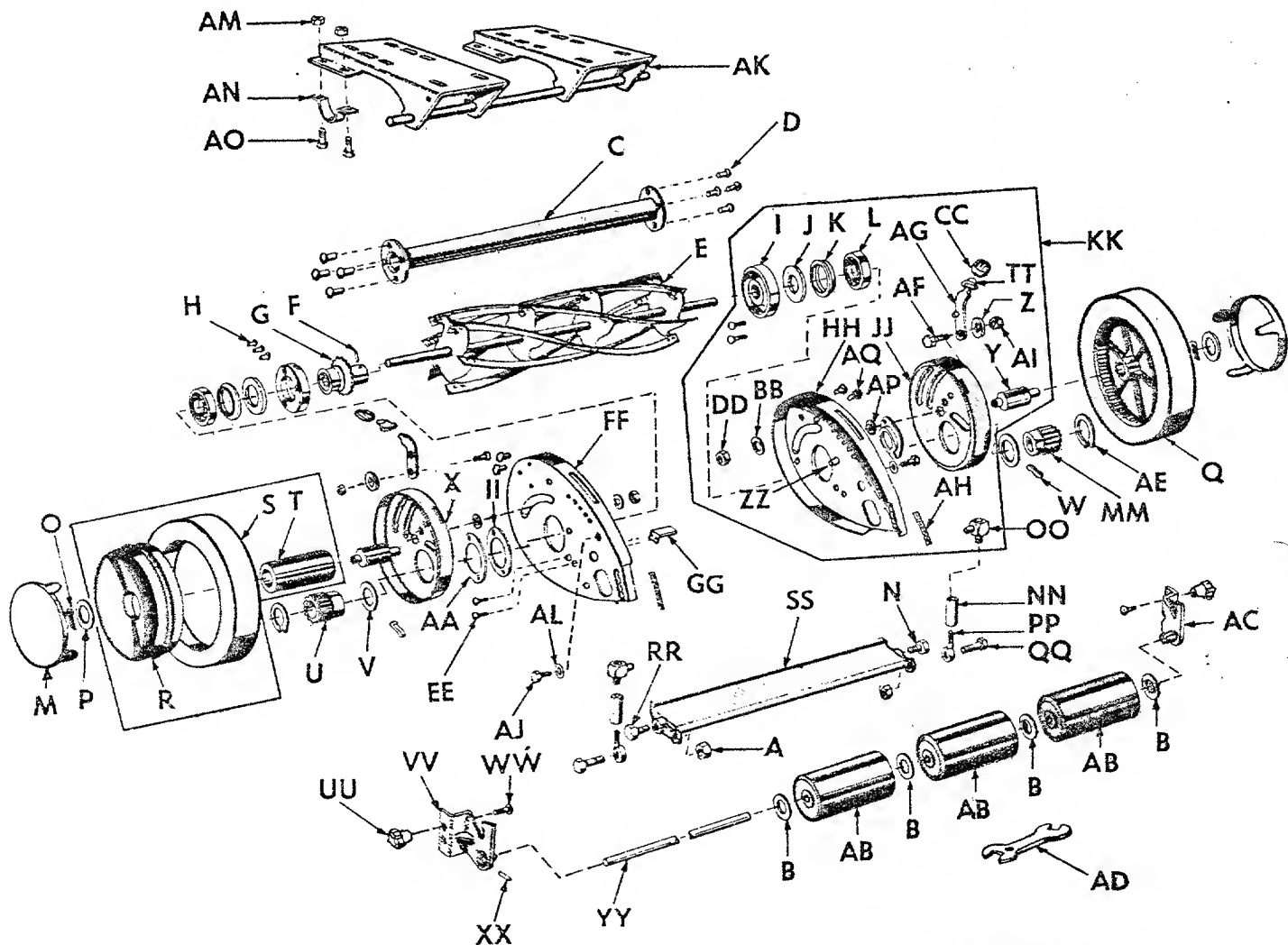


FIG. 10

GARDEN MARK 18" REEL LAWN MOWER
MODEL ZYJ-197A



ALL UNNUMBERED PARTS
INTERCHANGEABLE WITH
OPPOSITE SIDE

PARTS LIST

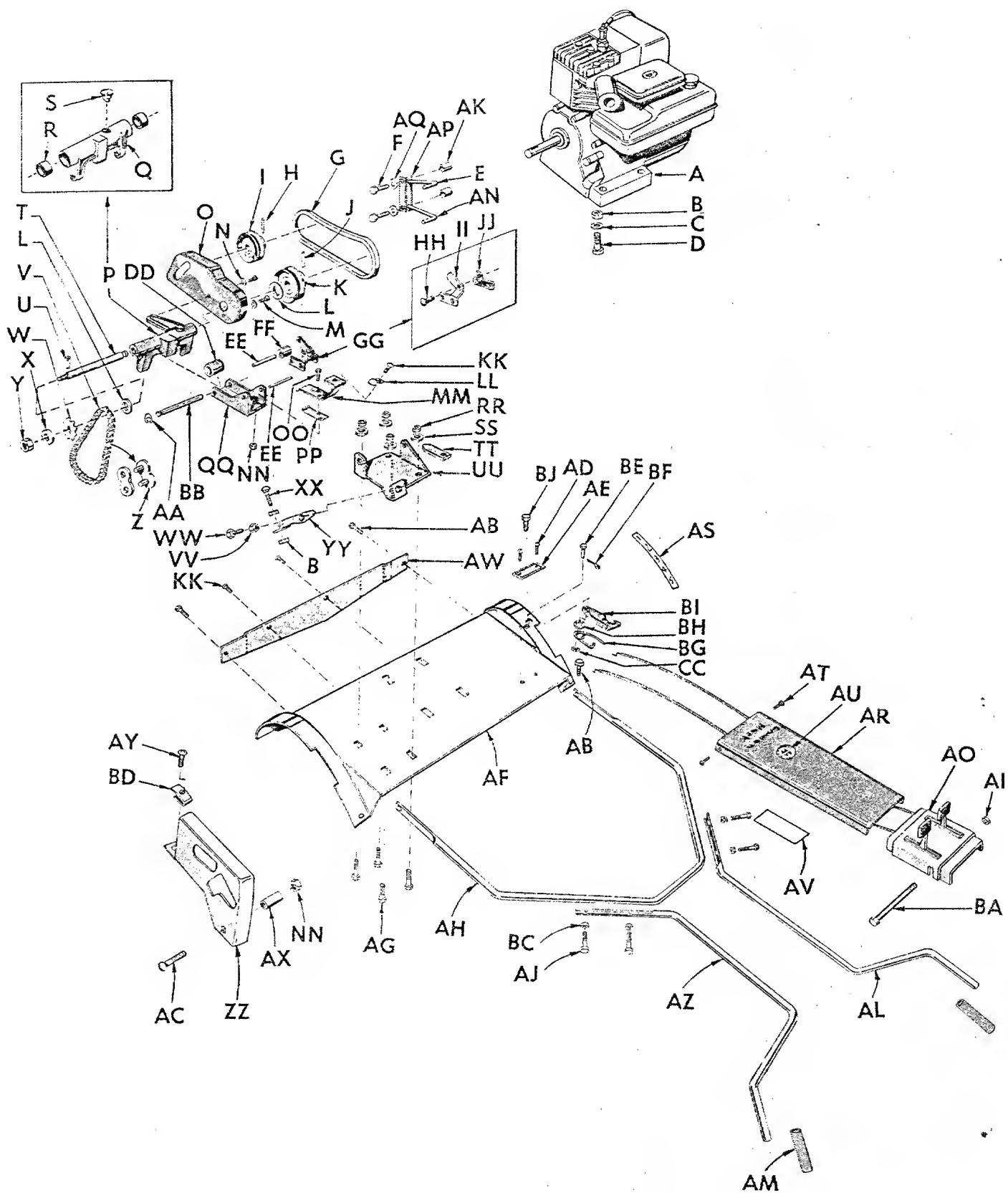
MODEL — ZYJ — 197A

Your Mower is right hand (R.H.) or left hand (L.H.) as you push.

REF. LTR.	PART NO.	NAME OF PART	REF. LTR.	PART NO.	NAME OF PART
A	149	*Nut (3/8-24 Hex).....	HH	1129-138-39	End Plate with Trunnions—R.H.....
B	1540-59	Washer—Roller.....	II	1624-138	Spacer.....
C	1112-18-39	Spacer Tube Assembly.....	JJ	1118-8-39	Gear Housing—R.H.....
D	1530-6	Rivet.....	KK	1129-214-39	End Plate Ass'y Complete—R.H.....
E	2135-20-39	Reel Assembly.....	KK	1129-213-39	End Plate Ass'y Complete—L.H.....
F	1548-5	Rollpin.....	MM	1692-4	Pinion Gear—R.H.....
G	2121-2-39	Spracket, Anti-wind Cup & Hub Ass'y.....	NN	1539-31	Nut.....
H	1530-20	*Rivet (3/8 Dia x 1 1/2).....	OO	1156-6	Trunnion.....
I	1629-28	Retainer.....	PP	1513-40	Bolt.....
J	104	Felt Washer.....	QQ	453	Screw.....
K	106	Felt Retainer.....	RR	455	Screw Cutter Bar R.H. Thd.....
L	3	Bearing.....	SS	2134-11-39	Cutter Bar Assembly.....
M	2674-18-01	Hub Cap.....	TT	1622-50	Dust Cover.....
N	1509-86	Screw Cutter Bar L.H. Thd.....	UU	1643-22-39	Roller Adjust Knob.....
O	142	*Cutter Pin (1/8 x 5/8).....	VV	2132-12-39	Roller Bracket Assembly—L.H.....
P	141	Washer.....	WW	1529-25	Bolt (3/8-18 x 3/8).....
Q	1108-79-41	Wheel and Tire Assembly.....	XX	1548-7	Rollpin.....
R	1110-27-41	Drive Wheel & Bearings Less Tire.....	YY	1632-57	Roller Shaft.....
S	2619-21	Tire.....	ZZ	10	Trunnion.....
T	1652-52	Bearing.....	AB	1126-7	Roller Assembly.....
U	1692-3	Pinion Gear—L.H.....	AC	2132-11-39	Roller Bracket Assembly—R.H.....
V	109	Felt Washer.....	AD	72	Wrench.....
W	323	Pawl.....	AE	1650-21	Retaining Ring.....
X	1118-9-39	Gear Housing—L.H.....	AF	1509-38	*Screw (#10-32 x 3/8 Hex Hd.).....
Y	1631-26	Axle.....	AG	1155-14-41	Spring & Trunnion Assembly.....
Z	1540-55	Washer.....	AH	1616-119	Roller Adjust Label.....
AA	1629-41	Retainer.....	AI	1534-8	Nut (10-32 Gripco).....
BB	1657-19	Bushing.....	AJ	3-77	*Bolt (3/8-18 x 1/2 Hex Hd.).....
CC	2643-20	Knob Wheel Adjust.....	AK	2132-42-39	Mounting Bracket Ass'y.....
DD	1538-23	Nut.....	AL	1025	*Lockwasher (3/8 Split).....
EE	1117	Screw (10-32 x 3/8 Sems).....	AM	1538-8	Lacknut (1/4-20).....
FF	1129-139-39	End Plate With Trunnions—L.H.....	AN	1609-189-39	Retaining Bracket.....
GG	1723-1	Scraper.....	AO	1529-15	*Bolt (1/2-20 x 3/8 Carr.).....
			AP	1540-43	Washer.....
			AQ	1657-23	Bushing—Nylon.....
				0611-409	Operator's Manual.....

For Illustration—See Page 8

*Standard Hardware Item—May Be Purchased Locally



For Parts List—See Page 11

PARTS LIST

MODEL — ZYJ — 197A

REF. LTR.	PART NO.	NAME OF PART
		Power-Kraft Engine Model 60102.
A		Type 0138-01
B	70	*Nut ($\frac{3}{8}$ Hex).....
C	1025	*Lockwasher ($\frac{3}{8}$).....
D	1529-11	*Bolt ($\frac{3}{8}$ -18 x $1\frac{3}{8}$ Carriage).....
E	1724-7	Keeper-Belt Upper.....
F	1509-69	*Screw ($\frac{1}{4}$ -20 x $1\frac{3}{4}$ Fillister Hd.).....
G	1651-20	"V" Belt.....
H	1508-13	Set Screw ($\frac{3}{8}$ -24 x $\frac{1}{2}$ Self Lock).....
I	1626-40-39	Pulley.....
J	1548-11	Rollpin.....
K	2120-34-39	Pulley Assembly.....
L	1540-17	*Washer ($\frac{3}{8}$ x $1\frac{1}{8}$).....
M	1511-9	*Screw (10-32 x $\frac{1}{2}$ Sems. Ph. Hd. Thd.) (Cutting).....
N	1540-55	Washer.....
O	2639-30-39	Belt Guard.....
P	2102-20-41	Jackshaft Housing, Bearings & Oiler Assembly.....
Q	3601-64-41	Jackshaft Housing.....
R	1652-1	Bearing.....
S	1691-2	Oiler.....
T	1632-26	Jackshaft.....
U	1546-2	Pin.....
V	1654-2	Chain.....
W	1638-16	Sprocket.....
X	1036	Washer.....
Y	1538-16	Nut ($\frac{1}{4}$ -20 Hex Jam Lock Gripco).....
Z	1113-13	Connector Link.....
AA	1650-10	Retaining Ring.....
BB	1547-3	Pin.....
CC	1097	Washer.....
DD	1642-30-31	Spring.....
EE	1548-13	Rollpin.....
FF	1658-8	Roller.....
GG	1155-15-41	Roller Lever Assembly.....
HH	9	Rivet.....
II	1705-17	Roller Lever—L.H.....
JJ	1705-10	Roller Lever—R.H.....
KK	1117	*Screw (10-32 x $\frac{3}{8}$ Ph. Rd. Hd. Thd. Cut Sems).....
LL	1694-10	Clamp.....
MM	2609-180-41	Control Bracket.....
NN	1534-8	Nut (10-32 Gripco).....
OO	41-054	*Screw (10-32 x $\frac{3}{8}$ Rd. Hd. Sems).....
PP	2642-52-41	Spring.....

REF. LTR.	PART NO.	NAME OF PART
QQ	1609-83-41	Bracket.....
RR	67	*Nut ($\frac{1}{4}$ -20 Hex).....
SS	1018	*Lockwasher ($\frac{1}{4}$).....
TT	1624-50	Spacer.....
UU	3609-82-41	Bracket.....
VV	41-028	Nut ($\frac{3}{8}$ -24 Hex Lock Gripco).....
WW	1513-18	Bolt ($\frac{3}{8}$ -24 Hex Shoulder Bolt).....
XX	1513-23	Bolt ($\frac{3}{8}$ -18 x $1\frac{1}{8}$ Step).....
YY	2705-6	Lever.....
ZZ	3639-42-41	Guard.....
AB	1513-8	*Bolt ($\frac{3}{8}$ -24 x $\frac{1}{2}$ Sems Hex Hd.).....
AC	1501-20	*Screw (10-32 x $1\frac{1}{4}$ Ph. Hd. Sems).....
AD	1020	*Screw (6 x $\frac{1}{4}$ Rd. Hd. Ph. Self tap).....
AE	1605-312	Name Plate.....
AF	3153-22-41	Deck.....
AG	1529-15	*Bolt ($\frac{1}{4}$ -20 x $\frac{5}{8}$).....
AH	3712-48-01	Lower Handle Section.....
AI	1538-6	Nut ($\frac{3}{8}$ -18 Hex Gripco).....
AJ	1509-39	*Bolt ($\frac{1}{4}$ -20 x $1\frac{3}{8}$).....
AK	1624-69	Spacer.....
AL	5712-32-01	Upper Handle Section—R.H.....
AM	1710-20	Handle Grip.....
AN	1724-9	Lower Belt Keeper.....
AO	3142-47	Throttle Control Assembly.....
AP	1606-48	Belt Keeper Bracket.....
AQ	1540-23	Washer.....
AR	4500-212-39	Handle Cover.....
AS	1616-114	Label—Wheel Adjust.....
AT	1511-12	*Screw (#10-32 x $\frac{3}{8}$ Rd. Hd. Self Tap).....
AU	1616-113	Label.....
AV	1616-120	Label—Height Adjustment Chart.....
AW	4699-41-39	Grill.....
AX	1624-117	Spacer.....
AY	1522-3	*Bolt (#10 sht. mtl. scr.).....
AZ	5712-33-01	Upper Handle Section—L.H.....
BA	1509-89	*Screw ($\frac{3}{8}$ -18 x $4\frac{1}{4}$).....
BC	1538-8	Nut ($\frac{1}{4}$ -20 Hex Gripco).....
BD	1539-7	Nut "U" Type.....
BE	1545-23	Clevis Pin.....
BF	1547-4	Cotter Pin.....
BG	2642-51	Spring.....
BH	1624-122	Bushing.....
BI	2627-21-41	Latch.....
BJ	1513-41	Bolt ($\frac{3}{8}$ -24 x $\frac{3}{4}$ Hex Thd. Cut).....

For Illustration—See Page 10

*Standard Hardware Item—May Be Purchased Locally

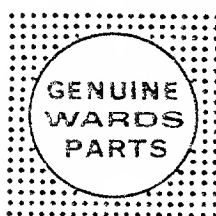
HOW TO OBTAIN SERVICE



The merchandise you have purchased from us has been carefully engineered and manufactured under Wards rigid quality standards and should give you satisfactory and dependable operation. However, like all mechanical merchandise, it may occasionally require adjustment or maintenance. Should you ever need technical assistance, please contact or write your nearest Wards retail store, catalog store, or mail order house. Provide the following:

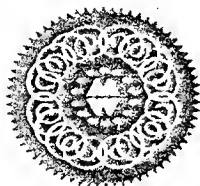
1. Model, serial number and all data shown on the model plate. When ordering parts for engine, also furnish all the information which appears on the engine model plate.
2. The date and the Wards branch from which you purchased your lawn mower.
3. State briefly the trouble you are having.

HOW TO OBTAIN REPLACEMENT PARTS



Repair parts may be obtained from your Wards Retail Store, Catalog Store, or Mail Order House and will be made available at current prices. If requested, prices will be quoted in advance. NOTE: Many of the nuts, bolts, etc., listed in the parts list of this manual are standard hardware parts and are indicated with an asterick(*). These parts may be purchased locally for your convenience and for faster service. Check the Hardware Department of your local store.

When requesting repair parts, be sure to give the model and serial number which is shown on the model plate. Also give the part number and the name of the part as shown in the repair parts listing. In addition, when ordering parts for your gasoline engine, also furnish the information which appears on the engine model plate. If you order by mail, you will pay the transportation charges from the shipping point.



Warranty

For a period of one year from date of sale, we will, when brought to any of our locations, repair or replace without charge any parts which Wards examination shall disclose to be defective in material or workmanship. This warranty does not cover adjustments to ignition parts or carburetors, spark plugs, sharpening, adjustments made necessary through normal operation or any failures resulting from improper care, abuse, accidental damage or failure to lubricate properly. Our obligations under this warranty are in lieu of all other warranties or guarantees expressed or implied.

MONTGOMERY WARD